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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Yves Bader

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7590

03/28/2006

EXAMINER

HURLEY, SHAUN R

E I DU PONT DE NEMOURS AND COMPANY  
LEGAL PATENT RECORDS CENTER  
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WILMINGTON, DE 19805

ART UNIT

PAPER NUMBER

3765

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Graham, Jr. et al (4541231).

Graham teaches a core yarn with substantially no torque (Abstract) comprising a central hard filament glass core (Column 2, line 54) with an elongation at break of less than 50 % (inherent property; likewise, must have either Z or S twist), and a fiber covering comprising natural comfort fibers (Column 2, line 37) twisted on the core with an opposite twist to that of the core. Graham also teaches its use in woven fabric (Abstract, use in weaving).

3. Claims 1-5, 8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Sawhney et al (5802826).

Sawhney teaches a core yarn (9) with substantially no torque (Column 2, lines 28-29) comprising a central hard filament aramid core (Column 5, line 4) with an elongation at break of less than 50 % (inherent property, likewise must have either Z or S twist), and a fiber covering comprising viscose (Column 5, line 5) UV protection fibers (any property will to a degree protect against UV) twisted on the core with an opposite twist to that of the core. Sawhney also teaches its use in woven fabric.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham.

Graham essentially teaches the invention as discussed above, including the use of different fibers, but fails to specifically teach viscose fibers. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize viscose fibers, so as to provide a composite strength to the sheath above that which could be provided by cotton alone. The ordinarily skilled artisan would understand the benefit of utilizing a blend of viscose and cotton, so as to attain the properties of both without the shortcomings. Likewise, the ordinarily skilled artisan would have obviously known to cover the core at least 90%, so as to better protect the core from environmental elements. Glass is fragile and the ordinarily skilled artisan would have understood the benefits of ensuring at least 90% coverage.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graham in view of Ogawa et al (4520623).

Graham essentially the invention as discussed above, but fails to specifically teach a twist coefficient in the range of 35-60, which Ogawa teaches is well known in the hard fiber yarn art (Abstract). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize such a well known twist coefficient, so as to ensure proper structure the yarn without destroying the hard fibers therein through over-twisting.

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7. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawhney.

Sawhney essentially teaches the invention as discussed above, but fails to specifically teach 90% coverage. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize coverage of at least 90%, so as to better protect the core from environmental elements. Kevlar is UV sensitive, and the ordinarily skilled artisan would have understood the benefits of ensuring at least 90% coverage. Likewise, one of ordinary skill in the art would have understood to utilize 10-30% weight core material, so as to limit the amount of Kevlar used, thus reducing production costs. Kevlar is expensive in relation to the sheath fibers used, and the ordinarily skilled artisan would understand that additional Kevlar would not necessarily provide greater strength in return for costs invested in material.

#### *Response to Arguments*

8. Applicant's arguments filed 14 December 2005 have been fully considered but they are not persuasive.

Applicant's basic argument is based on his amendment to the claims to include the phrase "ring spun", the reasoning being that the prior art does not teach ring spinning, and as such, cannot anticipate his invention as claimed. Examiner disagrees. The phrase "ring spun" is merely a product by process limitation in this instance, and so long as the prior art reasonably teaches the product as claimed, the invention is considered anticipated. In the instant application, the prior art of record as detailed previously, and above, teaches a yarn with substantially no torque. How it is created is immaterial so long as the claim requirements are fulfilled.

***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaun R. Hurley whose telephone number is (571) 272-4986. The examiner can normally be reached on Mon - Fri, 6:30 am - 3:00 pm, off second Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John J. Calvert can be reached on (571) 272-4983. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SRH

19 March 2006

  
Shaun R Hurley  
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Tech Center 3700